

**Agenda Item No. 13**

**Meeting of the Reclamation Board  
March 16, 2007**

**Staff Report  
Floodway Protection Section**

---

**Item**

Consider approval of Application No. 18159-1 to construct a 12,500-foot-long seepage cutoff wall to a depth of about 80 feet from the existing levee crown elevation, in the left (south) bank levee of the Natomas Cross Canal. The cutoff wall will terminate at the crown elevation and will not exceed elevation of the existing crown of the levee (Attachment A).

**Applicant**

Sacramento Area Flood Control Agency (SAFCA)

**Description**

The Applicant is seeking a Board encroachment permit to construct approximately 12,500 linear-feet of slurry cut-off wall to the depth of about 80 feet below the existing crown elevation; 12,000 linear-feet in the left bank levee of Natomas Cross Canal and 500 linear-feet in the left bank levee of Sacramento River. The local maintaining agency for this area is Reclamation District 1000. The U. S. Army Corps of Engineers may consider this work a modification to the existing federal flood control project and therefore subject the applicant to the 33 USC 408 process. This project is referred to as the Natomas Cross Canal South Levee (Attachment B).

The project is divided in three reaches. Reach 1 begins at the confluence of NCC and the Sacramento River. This reach experienced seepage near the landside levee toe during high water in 1997 and 2006. There is also a corrugated metal pipe in this reach that penetrates the south levee of the NCC approximately 420 feet northeast of the confluence. SAFCA will inspect the pipe for compliance with the U.S. Army Corps of Engineers (Corps) criteria and the Reclamation Board (Board) regulations. SAFCA will remove the pipe if it is found not to be in compliance with the Corps criteria and the Board regulations. Reach 2 begins about 555 feet from the east levee of the Sacramento River and extends approximately 9,930 feet northeast. Reach 3 is approximately 1,500 feet long; it begins about 700 feet east of Reclamation District 1000 Pumping Plant No. 4. There is an existing pipe in this reach that will need to be evaluated for structural integrity and compliance with the Corps criteria and the Board's regulations. SAFCA will also remove the pipe if it is found not to be in compliance with the criteria and regulations.

### **Location**

The project is located in Sutter County north of Sacramento, west of Highway 99, and within a residential area known as the North Natomas area in Sections 23, 24, 13, and 18; Township 11North, Range 3 and 4 East This reach of the levee is maintained by Reclamation District 1000 (Attachment C).

### **Background**

The Natomas area, approximately 340 square miles, is a historic flood basin for the Bear, Feather, Sacramento and American rivers, and several small east side tributaries. It currently has more than 70,000 people living there as well as commercial property including Sacramento International Airport. Major routes including Interstates 5 & 80 and Highways 99 and 70 are located within the basin. The basin is bounded by the Sacramento River on the west, the Natomas East Main Drainage Canal (NEMDC), AKA Steelhead Creek, on the east, American river on the south, and the NCC on the northwest. A significant flood event in this area could potentially result in over 10 billion dollars damages.

SAFCA is the agency in charge of planning and implementation of flood control measures in the Sacramento metropolitan area. Natomas Cross Canal South Levee project work proposed under this application is Phase 1 of the improvements planned for the Natomas area by SAFCA. The objective of the proposed work under this application for the Natomas Cross Canal South Levee is to address through-seepage and under-seepage deficiencies. It is SAFCA's intent to initiate and complete the work prior to November 1, 2007, the beginning of the next flood season. SAFCA proposes to do this by constructing approximately 12,500 feet of slurry cutoff wall in the NCC south levee eastward from the confluence of NCC and Sacramento River, including about 500 linear-feet above the Sacramento River downstream from NCC confluence.

### **Discussion:**

Typically, most cutoff slurry walls have been installed by the Corps, examples are the slurry walls in the Sacramento River left bank levee and American River right bank levee as part of the American River Common Features Project. The Board issued two permits to Three River Levee Improvement Authority (TRLIA) to install slurry cutoff walls; Permit No. 17828 GM issued in 2004 allowed TRLIA to install a cutoff wall along the left bank levee of Yuba River; and Permit No. 18095 BD in 2006 for the additional slurry wall work along the left bank of Yuba River. Installation of a slurry cutoff wall within a federal flood control project levee is considered a modification to the project and, therefore, requires the Corps' permission. The Board has no authority to issue permits to modify project levees without the concurrence of the Corps.

### **Environmental Review**

SAFCA has finalized an Environmental Impact Report for all proposed improvements works in the Natomas area, including the proposed project in this application; staff has reviewed project's environmental documents submitted to the Board and prepared a summary of impacts and mitigation measures as outlined in Attachment D.

This application has been submitted to the Reclamation Board Environmental Review Committee (ERC) and received a conditional approval since SAFCA was in the process

of submitting applications to the California Department of Fish and Game pursuant to DFG Code, Section 1602 and California Water Quality Control Board pursuant to Harbor Act, Section 401 - water quality certification. SAFCA is expected to provide proof of filing of both applications prior to the Board meeting on March 16 in order to complete the compliance process with California Environmental Quality Act guidelines.

### **Endorsements**

The U. S. Army Corps of Engineers has reviewed this application and has no objections. Reclamation District 1000, the local maintaining agency, has also reviewed this application and provided an endorsement.

### **Policy Considerations**

As stated above, the purpose of this application is to construct a slurry cutoff wall within the federal flood control project levee. This modification to the flood control project will require Corps approval; therefore staff has included a letter from the Board to Corps requesting permission to modify the federal flood control project (Attachment E).

### **Staff Recommendation**

1. Staff recommends the Board approve the draft letter requesting U. S. Army Corps of Engineers to grant permission to the Board to allow the Sacramento Area Flood Control Agency to modify the federal flood control project levee.
2. Staff recommends the Board approve the draft permit No. 18159-1 and delegate authority to finalize the permit to General Manager.

### **Attachments**

- A. Application package
- B. Location Map
- C. Map of RD 1000
- D. Summary of Impacts and Mitigation Measures
- E. Letter requesting Corps to approve the modifications
- F. Draft Permit